

# OVERVIEW

In January 2000, the Pew Environmental Health Commission called for the creation of a coordinated public health system to prevent disease in the United States by tracking and combating environmental health threats. In response, the U.S. Congress appropriated funding to the Centers for Disease Control and Prevention (CDC) in Fiscal Year 2002. This funding enabled CDC to develop the National Environmental Public Health Tracking Program (referred to as Tracking Program).

CDC's Tracking Program is a multi-disciplinary collaboration that involves the ongoing collection, integration, analysis, interpretation, and dissemination of data from environmental hazard monitoring, human exposure surveillance, and health effects surveillance. As part of Tracking Program efforts, CDC is currently leading the initiative to build a National Environmental Public Health Tracking Network (Tracking Network). The Tracking Program, with the Tracking Network as its cornerstone, is CDC's response to calls for better understanding of how the environment can affect people's health. Although the Tracking Network is the tangible goal of this tremendous effort, the Tracking Program encompasses the people, technology, and information needed to accomplish this undertaking.

The following is an outline of the National Network Implementation Plan and provides an overview of the Tracking Network, its participating stakeholders, and how they will interact with and support the Tracking Program.



Centers for Disease Control and Prevention  
National Center for Environmental Health  
Division of Environmental Hazards and Health Effects  
National Environmental Public Health Tracking Program  
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## FUNCTIONS AND USES OF THE TRACKING NETWORK

The Tracking Network enables data related to environmental public health to be collected, organized, managed, analyzed, and displayed, and will provide users with access to interpreted environmental public health information. These functions represent the value that the Tracking Network adds to the practice of environmental public health and include the following:

- Compiling and providing access to a set of nationally consistent data and measures
- Allowing users to search for data on the Network
- Providing information about the types of data on the Network
- Exchanging data by conducting bi- or multi-lateral exchanges to access and make data available.
- Providing tools for data analysis and visualization
- Informing and interacting with the public

Potential users of the Tracking Network include:

- Environmental and public health practitioners
- Policy makers
- Public
- Researchers

## IMPLEMENTATION ACTIVITIES

### FY 2006

Identify initial nationally consistent data and measures (e.g. asthma, birth defects, lead poisoning, air pollution, etc.) to be examined.

Begin Tracking Network national portal and gateway development, including security, metadata, analytical tools, transport, and services.

### FY 2007

Begin implementation of Tracking Network national portal and gateway security infrastructure.

### FY 2008

Deploy Tracking Network national portal with data tools (secure interface) using security infrastructure.

Deploy Tracking Network national portal with data tools (public interface) for public access.

Deploy grantee gateways to support secure data exchanges with the Tracking Network national gateway, other grantee gateways, and partner interfaces.

### FY 2009

Continue to identify and add national measures and other relevant grantee/partner data and assets (and metadata) to the Tracking Network.

### FY 2010

Continue to explore, develop, and integrate advanced tools and services on the Tracking Network.

## KEY COMPONENTS OF THE TRACKING NETWORK

The Tracking Network will be segmented into several inter-related components specifically identified to assist in the technical implementation of the Tracking Network.

The main elements will include:

**National Portal** – serves as a Web-based interface for stakeholders, the public, and other users to interact with the Tracking Network. This is what the users will see.

**National Gateway** – acts as a hidden “traffic control officer,” regulating the standards and protocols for data exchange and access.

**Network Interfaces** – primarily in the form of gateways, will interact with other parts of the Tracking Network, other grantee gateways, and other partners in an automated manner.

**Nationally Consistent Data and Measures** – electronic records and statistics that are collected and/or organized based on standards.

**Stakeholder Data and Assets** – may provide secure access to or otherwise interact with multiple other data sources and services provided by stakeholders.

## ACCESSING THE TRACKING NETWORK

Depending on the stakeholder, the Tracking Network will primarily be accessed through the national portal and gateway – offering an easy and secure means of transmitting and gathering information.

Access to Tracking Network data and services will be closely managed to ensure that only authorized users and systems will be able to access restricted parts of the Network. Network interfaces for grantees and other stakeholders will be individually developed to facilitate this secure interaction in a way that complies with local and state network environments.

## WHAT DOES THE TRACKING NETWORK PROVIDE?

The Tracking Network provides a set of services intended to directly support environmental public health practitioners and provide the public and other stakeholders with access to improved tracking information. The key services provided by the Network include:

- Online and downloaded tools for sharing and obtaining data
- National repositories which house the Network’s key services
- Metadata management and search functionality to find and assess standardized data.
- Data selection, access, and exchange services and tools
- Tools for data management, analysis and visualization

## TRACKING NETWORK CONTENT

The Tracking Network will include a set of nationally consistent data and measures about health, exposures and hazards.

- **Health data** – focused on non-infectious health conditions, such as poisoning by carbon monoxide or lead, asthma and other respiratory disease, cancers, and birth defects.
- **Exposure data** – observes the presence of an environmental agent or its metabolite in individuals. This exposure could include lead or cotinine in blood and arsenic in urine.
- **Hazard data** – includes chemical agents like pesticides, physical agents like dust particles, and biologic toxins like harmful algal blooms that may be found in air, water, soil, food, or other environmental media.